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MYOCARDIAL ISCHEMIA AND INFARCTION

URIC ACID LEVEL IS A PREDICTOR OF CORONARY COLLATERAL DEVELOPMENT IN PATIENTS WITH NON ST SEGMENT ELEVATION ACUTE CORONARY SYNDROME

ACC Poster Contributions
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Background: It is known that uric acid is associated with oxidative stress, endothelial dysfunction and endothelium dependent nitric oxide activation. High level of uric acid is related with poor prognosis and increased cardiovascular mortality. We aimed to determine uric acid levels and its association with coronary collateral vessel development in non ST segment elevation acute coronary syndrome patients.

Method: The study population included 175 patients with non ST segment elevation acute coronary syndrome patients. At the first day of their entry to hospital, complete blood counting, kidney function test, lipid profile, fasting glucose and uric acid levels were analyzed for all patients at blood samples. Coronary angiography was performed to all patients within 24-72 hours. Patients with 75% or more lumen occlusion in at least one of coronary arteries were included to study and Rentrop collateral classification was performed. It is accepted that rentrop class 0-I is poor-developed collateral, rentrop II-III is well-developed collateral. Patient with normal and elevated uric acid levels were compared according to collateral development degree.

Results: According to uric acid levels, patients were divided into two groups; group 1 consisted of 102 patients with normal uric acid levels (90 male, 12 female) and group 2 consisted of 73 patients with elevated uric acid levels (59 male, 14 female). Basal characteristics, diagnoses and presentation of cardiovascular risk factors were similar between groups. In group 1, poor-developed collateral was determined in 54 patients (%54) and well-developed collateral was determined in 46 patients (%46). In group 2, poor-developed collateral was determined in 54 patients (%76.1) and well-developed collateral was determined in 17patients (%23.9). In comparison of two groups, uric acid levels were significantly and negatively correlated with degree of coronary collateral development (p=0,004).

Conclusion: Coronary collateral development is poor in patients with high levels of uric acid. Uric acid level is an indicator of coronary collateral development.